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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/634,637	08/08/2000	Ken Yamauchi	P108391-00010	4489

7590 07/10/2003

Arent Fox Kintner Plotkin & Kahn PLLC
Suite 600
1050 Connecticut Avenue NW
Washington, DC 20036-5339

EXAMINER

CHAUDRY, MUJTABA M

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/634,637

Applicant(s)

YAMAUCHI, KEN

Examiner

Mujtaba K Chaudry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 27 June 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Drawings

The corrected or substitute drawings were received on June 27, 2003. These drawings are accepted.

Specification

The corrected or substitute specification were received on June 27, 2003. The specification is accepted.

Response to Amendment

Applicant's arguments/amendments with respect to amended claims 1-11 filed June 27, 2003 have been fully considered but are not persuasive. The Examiner would like to point out that this action is made final (See MPEP 706.07a).

Applicant contends, "Vos (prior art of record) does not teach or suggest the feature of initializing a path metric calculated based on the Viterbi decoding method, at a moment when decoding of one of the data streams is started, if the strength of the noise measure is equal to or greater than the predetermined value." The Examiner disagrees. Vos teaches (cols. 6-7) a data decoder using a dynamically indexed channel state metric to decode symbols recovered from a signal received over a channel, comprising in combination: signal strength means for providing a signal strength indication of the signal corresponding to a symbol time period; averaging means,

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coupled to said signal strength means, for averaging a plurality of said signal strength indications to provide an average signal strength; indexing means, coupled to said signal strength means and said averaging means, for generating an index value corresponding to said symbol time period, **said index value depending on said signal strength indication and said average signal strength**; metric means (analogous to path metric in the present application), coupled to said indexing means, for selecting a channel metric corresponding to said index value; and decision means for weighting a decoder decision for said symbol time period in accordance with said channel metric. The Examiner would like to point out that essentially the present contention of Applicant is that if the signal strength is \geq than a predetermined threshold then the Viterbi decoding begins by initializing the path metric. Further support is found in col. 3-4, lines 53-68—lines 1-2, where Vos teaches the indexing function (35) generates an index value that corresponds to each symbol time period and **depends on the signal strength indication** at input (33) as well as the average signal strength at input (37). This dependency is a difference between the signal strength indication and the average signal strength provided by a difference circuit (39) at output (40). **The index value is made available to a metric function** (41) that selects a channel metric corresponding to the index value. This channel metric is provided to the decision circuit (27) at input (42). In FIG. 2 this is functionally depicted as an indexing switch (43) selecting, in accordance with the index value an entry point (45) to the metric function (41).

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Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vos (USPN 5363413).

The Examiner disagrees with the Applicant and maintains all rejections of amended claims 1-11 which essentially include same limitations of original claims 1-11. All arguments have been considered. It is the Examiner's conclusion that amended claims 1-11 are not patentably distinct or non-obvious over the prior art of record (See paper No 4).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

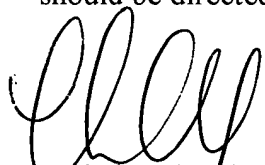
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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Any inquiries concerning this communication should be directed to the Examiner, Mujtaba Chaudry who may be reached at 703-305-7755. The Examiner may normally be reached Mon – Thur 7:30 am to 4:30 pm and every other Fri 8:00 am to 4:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, please contact the Examiner's supervisor, Albert DeCady at 703-305-9595. The fax phone number for the organization where this application is assigned is 703-746-7239.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the receptionist at 703-305-3900.


Mujtaba Chaudry
Art Unit 2133
July 4, 2003


ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100